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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,571	12/20/2000	Stephen J. Boies	YOR920000310 (1963-5012)	8516

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EXAMINER	
ZHONG, CHAD	

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/742,571	BOIES ET AL.	
	Examiner	Art Unit	
	Chad Zhong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

OFFICE ACTION

1. This action is responsive to communications: Appeal Brief, filed on 10/12/2004.

2. Claims 1-37 are presented for examination.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

3. Claims 6-8, 13-16, 31, 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art teaches DNS hierarchy, and backing up of tables between DNS servers, however, none of the prior art teaches purchaser DNS server that forward DNS request to look up purchaser's WWW server name to the DNS server of the remote proxy. Further, none of the prior art teaches proxy DNS map fraction of DNS request to server in remote proxy network.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 (c) of this title before the invention thereof by the applicant for patent.

5. Claims 1-5, 9-12, 17-20, 23, 26-30, 32-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Baker et al. (hereinafter Baker), "The Grid: International Efforts in Global Computing", July 2000.

6. As per claim 1, Baker teaches a method for dynamically reconfiguring a proxy server network to

deliver content by dynamically selling services, comprising the steps of:

determining unused capacity on the proxy server network for a period of time (pg 4, Col. 2, 2nd paragraph, lines 1-15, wherein the period of time comprises the time the resource is idle);

selling the said unused capacities for a specified period of time to web sites or other service providers which need additional capacity (pg 4, Col. 2, 2nd paragraph, lines 1-15; pg 4, Col. 1, 'resource management and scheduling', wherein the resources are managed by a scheduler for different CPU times to process the request for a period of time);

using said unused capacity to serve requests to the said web sites or other service providers purchasing the extra service for said period of time (pg 4, Col. 2, paragraph 2, lines 1-15).

7. As per claim 2, Baker teaches the method of claim 1, wherein the selling method of the unused capacity can be through market-based mechanisms (pg 4, Col. 2, paragraph 2, lines 1-15).

8. As per claim 3, Baker teaches the method of claim 1, comprising the additional step of providing a controller to monitor and control traffic from the web sites or other service providers to be within the limit of the capacity purchased (pg 8, Col. 2, 3rd paragraph, lines 8-12; pg 8, Col. 2, 4th paragraph, lines 11-14; wherein the agents keep track of resources and control traffic to meet user requirements).

9. As per claim 4, Baker teaches the method of claim 3, wherein said controller uses a domain name server based approach wherein the domain name server performs the name to address mapping for assigning the request to proxy servers of the proxy server network(pg 3, Col. 2, 7th paragraph, lines 1-8).

10. As per claim 5, Baker teaches the method of claim 4, wherein the said domain name server based approach makes the domain name server of the proxy server network a primary domain name server, which is the only domain name server that can assign names to the proxy servers (pg 3, Col. 2, 7th paragraph, lines 1-8, wherein the uniform naming space have the primary domain name service which

includes all the domain name services for that particular meta-computing environment).

11. As per claim 9, Baker teaches the method of claim 1, wherein said unused capacity can be based on an estimate of the usage of the proxy server network over time and said unused capacity can be provided based on the best efforts of the proxy server network (pg 4, Col. 2, paragraph 2, lines 1-15; pg 8, Col. 2, paragraph 3, lines 8-12).

12. As per claim 10, Claim 10 is rejected for the same reasons as rejection to claim 3 above.

13. As per claim 11, Claim 11 is rejected for the same reasons as rejection to claim 4 above.

14. As per claim 12, Claim 12 is rejected for the same reasons as rejection to claim 5 above.

15. As per claim 17, Baker teaches the method of claim 9, wherein said financial charge will be based on the purchaser World Wide Web site's actual usage of the unused proxy capacity (pg 4, Col. 2, 2nd paragraph, lines 1-15).

16. As per claim 18, Baker teaches the method of claim 2, wherein said selling method consists of selling the unused proxy capacity through an auction (pg 4, Col. 2, 2nd paragraph, wherein supply and demand regulates the actual price of unused capacity, likewise, the amount of demand determines the actual price of an item available in an auction).

17. As per claim 19, Baker teaches the method of claim 2, wherein the selling method consists of selling the unused proxy capacity through a real-time continuous market (pg 4, Col. 2, 1st paragraph, 2nd paragraph, wherein the unused capacity is changing and available on-demand in real time).

18. As per claim 20, Baker teaches the method of claim 5, wherein said controller sets the fraction of requests to be served by the proxy network, comprising the steps of:

setting an initial value based on a number provided by the purchaser World Wide Web site on the fraction of total requests needed to be routed to the proxy servers (see for example, pg 8, Col. 2, paragraph 3, lines 8-9, wherein the user sets his/her request value);

monitoring an actual number of World Wide Web object requests served by the proxy servers (pg 8, Col. 2, paragraph 3, lines 9-12, wherein the monitoring of the free resources available at the proxy server network takes place);

adjusting the fraction of World Wide Web object requests served so that the actual number of World Wide Web object requests served does not use more proxy server capacity than was purchased (pg 8, Col. 2, paragraph 4, lines 11-14, wherein the services get serviced are within user's requirements).

19. As per claim 23, claim 23 is rejected for the same reasons as rejection to claim 20 above.

20. As per claims 26 and 32, Claim 26 and 32 are rejected for the same reason as rejection to claim 1 above.

21. As per claims 27 and 33, Claims 27 and 33 are rejected for the same reasons as rejection to claim 2 above.

22. As per claims 28 and 34, Claims 28 and 34 are rejected for the same reasons as rejection to claim 3 above.

23. As per claims 29 and 35, Claims 29 and 35 are rejected for the same reasons as rejection to claim 4 above.

24. As per claims 30 and 36, Claims 30 and 36 are rejected for the same reasons as rejection to claim 5 above.

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

26. Claims 21-22, and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker et al. (hereinafter Baker), "The Grid: International Efforts in Global Computing", July 2000, in view of "Setting up your own DNS", Kessler, 1996.

27. As per claims 21, 24, Baker does not explicitly teach the method of claim 20 and 23 respectively, wherein remaining object requests which were not served by the proxy server are returned to said domain name server of the purchaser world wide web site to be served by a server of the purchaser's world wide web site.

28. Kessler teaches wherein remaining object requests which were not served by the proxy server are returned to said domain name server of the purchaser world wide web site to be served by a server of the purchaser's world wide web site (pg 3, line 24 – pg 4, line 6, wherein the initial DNS requests are not found on the local primary DNS server, in event of this, the request is further routed to the upper level DNS until the domain name has been resolved, and results returned to initial requester. In other words, the DNS servers are acting as backup DNS for hierarchy of DNS servers, this is supported in pg 3, lines 10-11, and since each DNS is responsible for a particular 'zone', the plurality of DNS servers acts as back ups of each other, periodically update their tables. In light of this, the domain address not mapped in the primary DNS is available for mapping at purchaser's website, thus the appropriate mapping is complete and the address is resolved; furthermore, Baker discloses limited excess capacity is available, thus its

obvious that requests not served by the idle process are returned locally for further processing).

29. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Baker and Kessler because they both dealing with DNS systems. Furthermore, the teaching of Kessler to allow

wherein remaining object requests which were not served by the proxy server are returned to said domain name server of the purchaser world wide web site to be served by a server of the purchaser's world wide web site

would improve the ability to look up DNS names for Baker's system by providing the ability to access domain name services else where other than the primary DNS server, thus providing a heterogeneous hierarchy of domain name services.

30. As per claims 22, and 25, Baker does not explicitly teach wherein remaining object requests which were not served by the proxy server are assigned to servers in the purchaser World Wide Web site using an assignment algorithm provided by said domain name server of the purchaser World Wide Web site.

31. Kessler teaches

wherein remaining object requests which were not served by the proxy server (pg 3, line 11) are assigned to servers in the purchaser World Wide Web site using an assignment algorithm provided by said domain name server of the purchaser World Wide Web site (pg 4, various resource records, wherein different DNS servers have different access algorithms, this is further exemplified in pg 6, lines 15-22, wherein different DNS servers have different access algorithms). This is done so for the advantages of synchronization between the servers.

32. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Baker and Kessler because they all deal with client server architecture and DNS systems. Furthermore, the teaching of Kessler to allow

wherein remaining object requests which were not served by the proxy server are assigned to servers in the purchaser World Wide Web site using an assignment algorithm provided by said domain name server of the purchaser World Wide Web site.

would improve the synchronization capabilities for Baker's system by keeping the various distributed DNS servers up to date periodically through access algorithms

Conclusion

33. Applicant's remarks filed 10/12/04 have been considered, prosecution is reopened by the examiner.

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "Dynamic Proxy Reconfiguration Method To Support Sharing Of Extra Capacity"

i. US 5935248 Stern et al.

ii. US 6154211 Kamachi et al.

iii. JP 11-032085 Tunnicliffe et al.

iv. Proceedings of the 19th International Conference for the Management and Performance Evaluation of Enterprise Computing Systems. "Client server capacity planning challenges", Major, Joseph B. 1994.

v. "WebOS: Operating system services for wide area applictions", Vahdat et al. 1998

vi. "Value added IP Services in a Wholesale Environment." Cosine Communications, 1998.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BURGESS, GLENTON B can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CZ
January 5, 2005

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